INSURV Submarine Weapons / Deck

USS _____ SSN-___

Inbrief:

All:

- Please ensure S/F rep for each event reports deficiencies to CSO
- Inspection status is as of time of inspection.; no guarantees on reinspects
- Anchor ops: CSO, TMC, or other anchor supervisor see me during U/W
- Escape trunk inspections: I need to see fwd and aft escape hatches open and shut from topside
- If there are particular areas of ship's concern, let my assistants or myself know to look at it.

Sonar:

- Radiated Noise Inspection (NSWC) vs. equipment checks (FTSC).
- Plan on 3 hours of dedicated self noise monitoring which includes standard machinery lineup and HVMS checks. This requires coordination with ENG and HVMS man (typically E-div).
- Please brief CO and INSURV coord. on ship impact (machinery lineup, speed, depth for Los, cav curve)
- Significant noise defi or mission degrade: please give me an opportunity to listen in sonar.
- Sonar sphere access inspection, requires Gas Free, either at-sea (preferred) or in-port.
- CSMP review

TM:

- See VLS test sequence, below
- Tube Loads: selected weapon each tube on surface, expect to load a weapons or shape in each tube at test depth. Also, expect to index weapons/shapes to all stows on the surface and at test depth.
- Pyro/ammo flood test iaw MRC
- Small arms inspection
- 3" lchr interlock checks ASAP while on surface unless impossible, otherwise open/inspect day.
- Flood control checks (URO-25 for guidance only, not complete URO) This has to be briefed before test depth.
- AEL / spot check inventory special tools for MK 48/ADCAP, tomahawk, and torpedo tube
- Weapons Loading Gear inspections. This may take part of RTP day. If there is a significant problem in this area, we could ask to rig Weapons Loading Skid
- CSMP review.

FT:

- See VLS test sequence, below
- Waterslugs: 1 set of four during surface max speed from control. All others are shot from TR.
- CSMP review.
- Run selected MRC's with assistant.

1st LT/Deck LPO

- Escape Trunk Hatches. I expect to see two open and shut from topside.
- Man Overboard Gear includes Gear that divers provide. This is different than Divers Gear AEL spot-check.
- 10 each life preservers, man overboard, helo transfer gear inspections. Use CSES or crews mess.
- Anchor and capstan gear case oil samples after RTP if requested.
- Towing gear inspection : underway or inport. You decide (gas free issue vs. where to put mooring lines)
- I go topside with your linehandlers to observe cleat ops, capstan ops and general conditions topside. (Please provide MK V AIULP, nonskid shoes)
- Liferafts (Non-SEIE): Have them on the pier by 0800 Open and inspect day. Do not open them up.

Scuba Diver:

- I will spot-check gear vs. AEL and review gauge cal system.
- Also, I need to see equipment you provide for man overboard situation.

VLS Sequence:

- Test all tubes on RTP day (preferred). Sequence testing based on number of simulators on hand. The following day is for troubleshooting and follow-up.
- Mechanical checks: d/p transducer checks (WS-96/S-9R); EMS sensor wet probe checks (WS-96/S-9R); locking bar, bumper bar checks (WS-96/S-7R).
- Electrical checks: Ident 109C, shoot 109D. Test each tube plus SWIM each side. Fault testing as time allows.

Life rings:

- I will inspect all on-board.

Ship's Personnel:

CSO: _____ Sonar Officer/AWEPS: _____ ST: _____ TM: _____
FT: _____ 1st LT: _____ Deck: _____ Scuba Diver: _____

Ship's Equipment:

Sonar:
Fire Control:
ARCI Phase:
Tactical Support System: AN/BYQ- 6(V)2/AN/BYQ-6(V)3; Processor (TAC-3, TAC-4); SFMPL version:
WLR-9:
AN/BQR-22:
Fat Line Towed Array:
Fat Line Towed Array Handler:
Thin Line Towed Array:
Thin Line Towed Array Handler:

Admin

Pre-Inspection
CO's Letter
OOC List
CSMP
Noise ESL (NSWC)
CASREP file
CSRR report, Salvage Inspection, Drydock report
Verify Weapons special tools AELs (torpedo tube, MK 48/ADCAP, UGM-109A) ** Return ASAP **
Deck Div AELs: Liferafts, Helo Transfer gear, Man overboard gear.
Scuba gear AEL
Underway agenda feedback to ships force coordinator/XO.

During Inspection
Open and Inspect List
PMS Assessment:
MRC _____ Last done (date) _____ Successfully accomplished? Yes/No/Partial (circle one)
Remarks:

MRC _____ Last done (date) _____ Successfully accomplished? Yes/No/Partial (circle one)
Remarks:

MRC _____ Last done (date) _____ Successfully accomplished? Yes/No/Partial (circle one)
Remarks:

MRC _____ Last done (date) _____ Successfully accomplished? Yes/No/Partial (circle one)
Remarks:

Post-Inspection
Quicklook message input
TLD
OUTBRIEF: copy to Weps
Report card, Metrics, stoplight data
Assist Critiques
Other bean counts as requested
Pay Messbill
Ship's outbrief

Specific Equipment Criteria

Escape Trunk (see separate sheet)

SEIE System

Ref: MIP H-409/005
MIP 5315/016
FLASH Jan-Mar 04, Jun-Sep 03

Observe/Inspect:

- Storage Locker forward (check seal, inspect interior)
- Crash Bag inventory forward (see MRC)
- Desalinator forward (MRC ref in FLASH)
- Storage Locker Aft (check seal, inspect interior)
- Crash Bag inventory aft (see MRC)
- Desalinator aft (MRC ref in FLASH)
- Inventory Log:
    - List of escape suits and valises (ser. number, date of package, stowage location)
    - Inspection and inventory dates with signature
    - 10 yr shelf life
    - Rotation forward to aft (prevent prolonged overheating)

Other Observations:

MK V AIULP or MK 1 Sterns Auto Inflatable Life Vest

Ref:

1. MIP 5832/012 (MK 5) or 5832/014 (MK1)
2. N/S T/M SS 710-AB-MMO-010
3. N/S Ltr 03G/72 of 20May94
4. Flash Jan-Mar 04, Jan-Feb 03, Oct-Dec 02, Jun-Jul 02, Apr-May 01(Parts List), Feb-Mar 01(Shear Wire NSN)
5. Ship's Safety Bulletin 2QTR97

Observe/Inspect:

- Stab. Mod installed correctly
- Whistle - right pocket grommet
- Sea Dye marker: 48" nylon
- PML not yet expired
- DML Battery (no swelling)
- DML wire leads 18" (ref 6)
- Anti-Sabotage Compound on CO2 retaining nut
- Proper CO_2 cartridge (MIL C-25369) (longer 5 ¼ in. - not shorter)
- CO_2 O-ring (CONAX, not S-TRON)
- Auto inflator battery (MRC U-1)
- Activation device copper wire seal
- Reflective Tape on bladder
- Torque wrench calibrated (ILS)

Other Observations:

KAPOK or Sterns Inherently Buoyant life preservers

Ref:

1. MIP 5832/007 (Kapok) or 5832/015 (Stearns)
2. MIP 5832/015
3. NSTM 077
4. FLASH Jan-Mar 04, Oct-Dec 03

Observe/Inspect:

- Ref. Tape (10x6 L, 8”sides, 10” back)
- Cover: rips, tears.
- Whistle
- Straps: good condition, not tied
- Harness D-ring hole sewn in.
- PML or DML
- Inflatable Radar Ball UN-30A/W (10 ea.)

Other Observations:

Steinke Hoods

Ref:

1. MIP H-409/003
2. NSTM CH-77

Observe/Inspect:

- Silicon on cover snaps (A-1)
- Dated inspection tag
- Oral tube not bent
- Knurled ring closed
- Face shield: no cracks, holes. Not folded.
- Mouthpiece protective cover
- Snorkel dust cover
- Whistle & nose clip tied to grommet
- Buddyline: length, hole size.
- Sea Dye marker: 48” line w/ bowline
- Zipper seal
- Reflective tape (NSTM)

Other Observations:

Man Overboard Gear

Ref: AEL, MRC, SSM Inventory Sheet, NSTM

Observe/Inspect:

- Inventory vs. AEL (2-330023061). Note this does not match SSM or MRC.
- Jacob's Ladder proper
- Bridge Lifering: Ship name, refl. tape, DML, rope
    - (Some ships remove lifering from line because the height of the bridge and the ship's stopping distance would cause more problems. line would get)
- Topside Lifering: Ship name, refl tap, DML, rope
- Diver's gear check (AEL)

Other Observations:

Helicopter Transfer Gear

Ref: AEL, MRC, SSM
Flash Mar-Apr 03

Observe/Inspect:

- Inventory vs. AEL
- Grounding wand condition
- Wind Sock

Other Observations:

Three Inch Launchers

Ref:

1. MRC WS-23/R-1A (Interlock Checks)
2. Illustrated Parts Breakdown
3. SSM

Op. Notes: Conduct Interlock checks ASAP on surface (MRC indicates conduct in-port, so it may be necessary to obtain permission to conduct this underway). It is preferred to conduct the MRC underway to identify problems early. Then, observe other events: SSXBT and SATCOM buoy (LCDP, local/pneumatic, any depth), waterslugs from control (any depth), hand ram waterslugs (any depth), and load./ backhaul inert shape at test depth.

Observe/Inspect:

- Interlocks Functional
- Flood Control Operational
- Packing Device upper lanyard
- Packing Device lower cap allen screw
- Tethered wire saddle (should be aligned and not cracked)
- Breech door surface
- Breech door gasket
- Wrenches for CL-18, 19 present/attached
- Muzzle ball leak
- Indications operative
- SSXBT Launch
- Shoot From Control (Waterslugs)
- Hand Rammer Op-check at Test Depth
- Inert Device Fit check at Test Depth

Other Observations:

Small Arms

Ref:

1. MRC 7611/001 R-1
2. NAVSEA OP-4 Ammunition Afloat
3. NAVSEAINST 8011.02A
4. CSLCSPINST 8500.4R
5. OP-2238 (color coding and labeling)
6. FLASH Articles
7. Tech manuals for 9 mm, line throwing kit

Op Notes: Verify most recent arms inventory list from NSWC (R834). Check condition and interlocks on selected weapons.

Observe/Inspect:

- Small Arms Locker Lock
- Small Arms Locker door condition: hinges, etc.
- Small Arms inventory
- Small Arms dirt, rust, oil
- Line Throwing Kit condition

Other Observations:

Force Protection / Anti Terrorism

Ref:

1. AEL

Observe/Inspect:

- Inspect equipment on AEL
- General condition

Ammo Locker Flood Test

Ref:

1. MRC 5221/S-1
2. NAVSEA OP 4
3. SSM OI 631-5, FP-10
4. SSM Vol 2-9 PIP 8
5. NAVSEA 804-1360106
6. FLASH Jan-Mar 04

Observe/Inspect:

- Test casting cover lanyard
- Flood valve locked and secure
- TD-38 initially cracked open (SSM OI 631-5, FP-10)
- Ammo Locker Thermometer
- Ammo Locker Door Gasket
- Ammo Locker Drain Line
- Ammo Locker lagged IAW OP 4
- Pyro Locker Thermometer
- Pyro Locker Door
- Pyro Locker has means to prevent pyro shift
- Ammo far side signs
- Funnel clean

Other Observations:

Radiated Noise Monitoring

Ref: Radiated Noise Inspection Guide approved by CSL, CSP, INSURV

Op Notes:
See Radiated Noise Inspection Guide.
Ensure Ship's force questions are answered early (before midwatch).
The LOS cuts and HVMS are normally conducted on first midwatch. Following LOS cuts and HVMS, demonstrate RNE program ability to produce db levels for specific freq.

Observe/Inspect:

- Rattles
- Tonals
- Broadband
- Cavitation
- Transients
- Ability to conduct Los cuts with TB-16
- Ability to collect and process HVMS data

Other Observations:

Large Angles

Ref: INSURVINST 4730.2E

Op Notes: Observe 1 set in TR, 1 set between sonar and capstan space, and 1 set in sonar or in control room.

Observe/Inspect:

- Stowage
- Water overflow
- Equipment malfunctions

Other Observations:

Anchor Demonstration

Ref:

1. INSURVINST 4730.2E
2. SSM

Operational Notes: If Initial free fall UNSAT, then walk out 1 fm, retrieve, and attempt freefall from fully housed position. If free fall still UNSAT, walk out 1 fm and try to free-fall from that position.

Observe/Inspect:

- Anchor Indication
- Initial Free Fall
- Bandbrake Operation
- Chain Lock
- Windlass operation
- Free fall from 1 fm (if required)
- Second free fall from fully housed (if required)
- Hydraulic leaks

Other Observations:

Towing Gear (SSN only)

Ref:

1. SSM
2. INSURVINST 4730.2E

Operational Notes: Requires sonar sphere access cleared of mooring lines and excess gear. Can be done at sea or in port. At sea, ship has to deal with mooring lines (unless they stow them somewhere else such as side passage). In port, the problem is gas free. Preferred time is at sea, anytime after surfacing.

Observe/Inspect:

- Pelican hook
- Chafing pendant
- Towing Bridle
- Towing Hawser 5" CIR double braid nylon, 450'
- Cotter pins (3) present and properly bent to prevent loss
- Excessive Rust

Other Observations:

Sonar Sphere Shipping Hatch (this is only a placeholder, not currently inspected)

Ref:

1. Maintenance Standard (MS) 1110-081-008
2. Navsea Dwg 123-5755047 (cover), 115-5795051 (seat)
3. POC: Mr. Howard Walters, SUBMEPP, code 1844.4, (207) 438-6135, WaltersHM@submepp.navy.mil

Observe/Inspect:

- Indications of leakage around seat

Other Observations:

Demolition charge lockers (688)

Ref: ship's drawings

Observe/Inspect:

- Locks (key control)
- Labels
- Locker condition

Other Observations:

Topside

Ref: INSURVINST 4730.2E

Observe/Inspect:

- Capstan Operation
- Cleat well drainage
- Cleat ease of operation
- Security light cavity rust (688)
- Security light cavity ball lock pin (688)
- Security light cavity interior condition (688)
- Security light cavity gasket (688)
- SA Valve Covers
- Safety track test (stop-spots, attachment points, joint integrity)
- SHT condition (688)

Other Observations:

Liferafts (688, na for ships with SEIE system)

Ref:

1. INSURVINST 4730.2E
2. AEL

Op Notes: Have both liferafts on pier. Attempt to inflate 1 with lanyard. If successful, them inflate second raft manually. If first is unsuccessful, then inflate it manually and attempt the second raft using lanyard. If it also fails to inflate with lanyard, then use manual pump to inflate.

Observe/Inspect:

- Operationally test lanyard activation inflation ability (one liferaft)
- If first raft inflates, manually inflate second raft
- If first raft unsuccessful, use lanyard for second raft
- AEL inventory

Other Observations:

Floating Lifeline

Ref:

1. N/S DWG 804-5000915 (SSN 688)
2. N/S DWG 612-6408925 (SSN 21)
3. Naval Safety Center Website (FLASH)

Observe/Inspect:

- 14 buoys max each section
- Sections linked with CRES snaphook, lines spliced
- Bumper centerline dist: 44" midspan, 68" others
- Tiewrap goes thru two strands, goes thru twice
- Missing bumpers

Other Observations:

Miscellaneous Open and Inspect Items

Ref: INSURVINST 4730.2E

Observe/Inspect:

- SSBN: esctrunk hatch cycling from topside
- Stanchions, topside setup
- SHT (688)
- Tattletales on ship's force lines
- Tattletales on squadron-provided lines
- WSH access (688)
- FET access
- J-Bar Davit wt test (688)
- J-Bar davit set up (688)
- J-Bar Davit accessories (688)
- Anchor gearcase oil: water, metal particles
- Capstan gearcase oil: water, metal particles
- Weapons loading and handling gear
- VLS Electrical Testing (see assistant)
- VLS Mechanical Testing (see assistant)

Other Observations:

Paint Condition

Ref:

1. NAVSEA RFI 00-003
2. NAVSEA Interior Visual Surface Condition Standard
3. JOINT FLEET MAINTENANCE MANUAL (VOL 4)
4. SHIPS DRAWINGS (E.G. PAINT SCHEDULES)
5. NSTM 9086-VD-STM-010/CH-631 PRESERVATION OF SHIPS IN SERVICE
6. GENERAL OVERHAUL SPECIFICATIONS (FOR EXAMPLE NAVSEA 0902-018-2010 FOR DEEP DIVING SSN/SSBN SUBMARINES)
7. MS 6310-081-015 SUBMARINE PRESERVATION MAINTENANCE STANDARD

Observe/Inspect:

- Paint color: Correct and matches
- Paint texture: gloss vs. flat
- Paint splatter
- Paint techniques (e.g. feathering)
- Coating appearance, surface prep
- Paint on sound mounts
- Paint on surfaces that are corrosion resistant
- Paint applied to surfaces with difficult access
- Paint over rust

Other Observations: